

10/541435  
Rec'd PCT/PTO 05 JUL 2005

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization International Bureau



(43) International Publication Date  
12 August 2004 (12.08.2004)

PCT

(10) International Publication Number  
WO 2004/067834 A1

(51) International Patent Classification<sup>7</sup>: D21C 9/02, 9/10

(21) International Application Number:

PCT/SE2003/001915

(22) International Filing Date: 9 December 2003 (09.12.2003)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
0300276-3 31 January 2003 (31.01.2003) SE

(71) Applicant (for all designated States except US):  
KVAERNER PULPING AKTIEBOLAG [SE/SE];  
P.O. Box 1033, S-651 15 Karlstad (SE).

(72) Inventors; and

(75) Inventors/Applicants (for US only): GUSTAVSSON,  
Lennart [SE/SE]; Renvallsvägen 38, S-653 50 Karlstad  
(SE). SNEKKENES, Vidar [NO/SE]; Herrhagsgatan  
62, S-652 19 Karlstad (SE). SAETHERÅSEN, Jonas  
[SE/SE]; Kärrängsvägen 37, S-663 42 Hammarö (SE).

(74) Agents: KYLIN, Peter et al.; Hynell Patentjänst AB, Pa-  
tron Carls väg 2, S-683 40 Hagfors/Uddeholm (SE).

(81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, EG, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

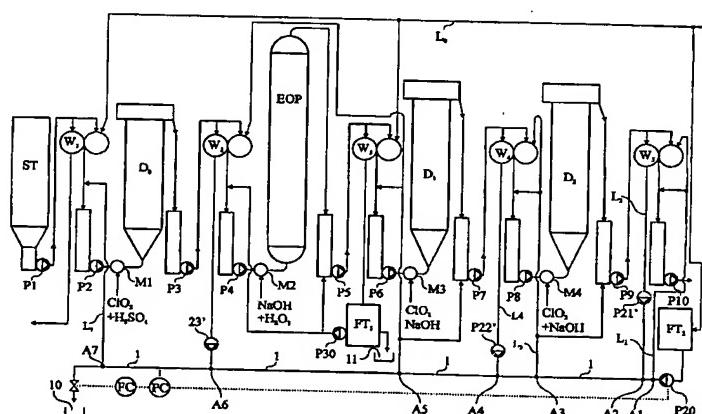
(84) Designated States (regional): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHOD FOR WASHING PULP IN A BLEACHING LINE AND A BLEACHING LINE



WO 2004/067834 A1

(57) Abstract: This invention relates to a method of bleaching cellulose pulp in a bleaching line, having at least two bleaching steps comprising a first (D<sub>1</sub>) and a second (D<sub>2</sub>) bleaching step, as seen in the direction of flow of the cellulose pulp, which bleaching steps have wash apparatuses (W<sub>4</sub>, W<sub>5</sub>) for the pulp arranged after the first and the second bleaching step, respectively, and in which wash liquor and where appropriate dilution liquor is led in principle in counter-current to the pulp flow through the bleaching steps in the bleach line, wherein that a substantial portion of the wash liquor, or all of it, is supplied by means of a main conduit (1), wherein each one of said wash apparatuses (W<sub>4</sub>, W<sub>5</sub>) is independently supplied by means of first branch conduits (L<sub>1</sub>, L<sub>3</sub>) connected to said main conduit (1), - each one of said wash apparatuses (W<sub>4</sub>, W<sub>5</sub>) independently bleeds out wash filtrate by means of second branch conduits (L<sub>2</sub>, L<sub>4</sub>) connected to said main conduit (1), and said main conduit has an outlet end (10) which bleeds out at least some of said wash filtrate from said wash apparatus (W<sub>4</sub>, W<sub>5</sub>).